



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Central Regional Office, 627 Main Street, Worcester, MA 01608

MITT ROMNEY  
Governor

KERRY HEALEY  
Lieutenant Governor

STEPHEN R. PRITCHARD  
Secretary

ROBERT W. GOLLEDGE, Jr.  
Commissioner

## FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("The Department") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

**ISSUED TO ["the Permittee"]:**

ANP Blackstone Energy Company, LLC  
204 Elm Street  
Blackstone, Massachusetts 01504

**FACILITY LOCATION:**

ANP Blackstone Energy Company, LLC  
204 Elm Street  
Blackstone, Massachusetts 01504

**NATURE OF BUSINESS:**

Electrical Power Generation

**RESPONSIBLE OFFICIAL:**

Name: Dennis Mallows  
Title: Plant Manager

**INFORMATION RELIED UPON:**

**Application No.** W027087

**Transmittal No.** W027087

ECP 7.28-W024283

Acid Rain Permit - 55212

**FACILITY IDENTIFYING NUMBERS:**

**SSEIS ID NO.** AQCR 118/PLT ID 211

FMF FAC NO. 302026

FMF RO NO. 302027

**STANDARD INDUSTRIAL CLASS (SIC):**

4911

**FACILITY CONTACT PERSON:**

Name: Robert K. Maggiani  
Title: Corporate Environmental Manager  
Phone: 508-876-8114

**This operating permit shall expire on October 7, 2010.**

For the Department of Environmental Protection,

*This is an official MADEP e-copy... see MADEP CERO BWP regional office file for official document as signed by Thomas P Cusson on 10/07/05*

\_\_\_\_\_  
Thomas P. Cusson, Permit Chief

\_\_\_\_\_  
Date



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## **SPECIAL CONDITIONS FOR OPERATING PERMIT**

A Legend to Abbreviated Terms found in the following Tables is located in Section 28 of the Operating Permit.

### **1. PERMITTED ACTIVITIES**

I. In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C (5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this permit.

### **II. DESCRIPTION OF FACILITY AND OPERATIONS**

A. The Permittee is named ANP Blackstone Energy Company, LLC (ANP) with a place of business located at 204 Elm Street, Blackstone, Massachusetts operating an electric generating facility. The power generating facility consists of two parallel power trains, each including an ABB GT-24 gas turbine rated at approximately 180 megawatts (MW) output capacity (210 MW with steam augmentation), an unfired exhaust heat recovery steam generator, a steam turbine, an electric generator, air cooled condenser and auxiliary equipment. Major auxiliary equipment associated with the facility includes a control room, CO oxidation catalysts, SCR catalysts for NO<sub>x</sub> control, ammonia storage tanks, a continuous emission monitoring system (CEMs), two small emergency diesel generators, one diesel fire pump, a waste oil burner, a natural gas raw water heater and natural gas dew-point heater.

B. The turbine generators have a total heat input capacity of approximately 3,630 MMBtu/hr (HHV) at an average ambient temperature of 59°F with no steam augmentation. Maximum total heat input during steam augmentation will be 4,367 MMBtu/hr (HHV at 0°F ambient). The hot exhaust gases exiting the turbines pass through two unfired heat recovery steam generators (HRSG) that recover the heat from these gases to produce steam. Steam produced in the HRSGs is fed into two steam turbines to generate a nominal output of 190 MW (170 MW during steam augmentation) of electrical power. The HRSG houses an 80% efficient carbon monoxide (CO) catalyst at maximum continuous uncontrolled CO emissions (50% gas turbine load) followed by an ammonia injection grid and the SCR catalyst for control of nitrogen oxides (NO<sub>x</sub>).

C. The facility is designed to operate continuously (24 hours per day, 7 days per week) except for equipment downtime (to allow for servicing, maintenance and repair activities) and during low periods of electrical demand. Each turbine generator utilizes natural gas as the only fuel. There will be no backup fuel.

D. The emissions from each turbine are emitted to the ambient air through individual new steel stacks, the tops of which shall be 180 feet above ground level and have an inside exit diameter of 18 feet which will provide for a maximum exit velocity of 63 feet per second at a temperature of 176°F under the maximum exhaust flow condition.

## 2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this operating permit:

Table 1			
EU#	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE
EU #1	ABB GT-24 Combustion Turbine	2183 MMBtu/hr input	Selective Catalytic Reduction and Carbon Monoxide catalysts
EU #2	ABBGT-24 Combustion Turbine	2183 MMBtu/hr input	Selective Catalytic Reduction and Carbon Monoxide catalysts

## 3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C (5)(h):

Table 2	
DESCRIPTION OF CURRENT EXEMPT ACTIVITIES	REASON
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the Department's Regional Office.	310 CMR 7.00: Appendix C (5)(h)

## 4. APPLICABLE REQUIREMENTS

### A. EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the emission limits/restrictions as noted below and as contained in Table 3, 3A, and 3 B.

#### A. Limits During Emergency or Malfunction

1. The Permittee shall not be automatically shielded from enforcement action brought for noncompliance with emission limitations specified in this permit as a result of an "emergency" and/or "malfunction". "Emergency" and "malfunction" are defined in table 6 of this operating permit.
2. An emergency and/or malfunction may constitute an affirmative defense to an action brought for noncompliance with emission limitations if the Permittee demonstrates the affirmative defense of emergency or malfunction through properly signed, contemporaneous operating logs and other relevant evidence that shows that:
  - a) an emergency or malfunction occurred and that the cause(s) of the emergency or malfunction can be identified;

- b) the facility was at the time being properly operated;
  - c) during the period of the emergency or malfunction, the Permittee took all reasonable steps as expeditiously as possible to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit; and
  - d) the Permittee submitted notice of the emergency or malfunction to the Department in writing within three (3) business days of the emergency or malfunction. The written notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, an estimate of the quantity of emissions released as a result of the emergency or malfunction and any corrective actions taken.
3. In any enforcement proceeding, the Permittee has the burden of proof in establishing the occurrence of an emergency or malfunction.
4. If an emergency episode requires immediate notification to any government agencies, the Permittee shall make timely notification to the appropriate parties as required by law. An exceedance of emission limits in Table 3 due to an emergency or malfunction shall not be deemed a 'federally permitted release' as that term is used in 42 U.S.C section 9601(10).
5. The Permittee shall not be shielded from enforcement for any emission exceedances that would result in a predicted exceedance of any health based air quality standards.

B. Annual Emissions -

The Permittee shall comply with the annual emissions referenced in Table 3B based on a rolling 12-month total.

C. Averaging Time -

The Permittee shall comply with the "lb/MMBtu", "ppm", and "lb/hr" emission limits referenced in Table 3 based on a one-hour block average.

The Permittee shall comply with the emission limits specified in Table 3. The emission limits are per unit based upon one hour block average @ 50% load or greater.

Table 3 - Emission Limits EU 1 and EU 2 <sup>(1,2,3)</sup>						
Load % <sup>(4)</sup>	100%	75%	50%	>100% -+ Steam Augmentation	Applicable Regulation or Plan Approval	Restrictions
NOx lb/hr	14.7	11.8	9.0	27.0	Transmittal #118969, 310 CMR 7.28, 40 CFR PART 60 Subpart GG	Natural Gas shall be the sole source of fuel. There is no standby fuel. Sulfur content in natural gas shall not exceed 40 CFR Part 75 Appendix D to Part 75 Section 2.3.1.4 Documentation that Fuel is Pipeline Natural Gas and per 40 CFR Part 60.333 Standard For Sulfur Dioxide
CO lb/hr	11.0	12.0	54.6	12.0	Transmittal #118969	
VOC lb/hr <sup>(5)</sup>	3.6	2.9	3.9	9.8	Transmittal #118969	
PM lb/hr	23.9	19.1	14.6	26.2	Transmittal #118969	
SO <sub>2</sub> lb/hr	4.6	3.7	2.8	5.0	Transmittal #118969	
NH <sub>3</sub> lb/hr	5.4	4.3	3.3	5.9	Transmittal #118969	
NOx lb/MMBtu	0.007	0.007	0.007	0.013 <sup>(6)</sup>	Transmittal #118969, 310 CMR 7.28, 40 CFR PART 60 Subpart GG	
CO lb/MMBtu	0.006	0.008	0.045	0.006	Transmittal # 118969	
VOC lb/MMBtu	0.002	0.002	0.003	0.005	Transmittal # 118969	
PM lb/MMBtu	0.012	0.012	0.012	0.012	Transmittal # 118969	
SO <sub>2</sub> lb/MMBtu	0.002	0.002	0.002	0.002	Transmittal #118969	
NH <sub>3</sub> lb/MMBtu	0.003	0.003	0.003	0.003	Transmittal #118969	
NOx ppmvd 15% O <sub>2</sub>	2.0	2.0	2.0	3.5	Transmittal #118969, 310 CMR 7.28, 40 CFR PART 60 Subpart GG/310 CMR 7.19 (7)	
CO ppmvd @ 15% O <sub>2</sub>	3.0	4.0	20.0	3.0	Transmittal #118969	
VOC ppmvd @ 15% O <sub>2</sub> <sup>(5)</sup>	1.4	1.4	2.5	3.5	Transmittal #118969	
NH <sub>3</sub> ppmvd @ 15% O <sub>2</sub>	2.0	2.0	2.0	2.0	Transmittal #118969	
NOx	See Special Terms and Conditions, Table 8				310 CMR 7.28	
Opacity	50% load and above – Opacity shall not exceed 10% at any time.				Transmittal #118969	
EU #1 and EU #2	(1) Short-term emission limits specified in the table above are per unit based upon one hour block average unless otherwise specified and apply @ 50% load or greater. (2) Except where noted hourly emission rates while burning natural gas are presented here based on 0°F ambient temperature. (3) The lb/MMBtu (pound per million Btu) emission limits are worst case values based on HHV. (4) Emission limits at intermediate loads are calculated based on linear interpolation of lb/MMBtu permit limits. Emission limits in lb/MMBtu are based on HHV. Optimization testing shall establish actual emission limits under the various load conditions. (5) VOC expressed as CH <sub>4</sub> (methane). (6) Limit base on >100% load –steam injection @ 90°F					

The Permittee shall comply with the **START-UP and SHUT-DOWN** emission limits presented in Table 3A.

Table 3A			
EU#	Emission Limits-Startup and Shutdown		
EU #1 and EU#2	Pollutant	Startup	Shutdown
	NO <sub>x</sub>	700 lb/3 hour average	500 lb/1 hour average
	CO	600 lb/3 hour average	335 lb/1 hour average
	NH <sub>3</sub>	40 lb/3 hour average	40 lb/1 hour average
	Opacity	In compliance with 310 CMR 7.06(1)(a)	In compliance with 310 CMR 7.06(1)(a)
<p><u>Startup</u>  A “hot/warm start” is defined as the maximum duration of time to achieve emissions compliance representative of steady-state operation (emission rates not to exceed those listed in Table 3) at nominal 50 percent load with the turbine offline for 24 hours or less. A "hot/warm start" operation shall not exceed 180 minutes.</p> <p>A “cold start” is defined as the maximum duration of time to achieve emissions compliance representative of steady-state operation (at emission rates not to exceed those listed in Table 3) at nominal 50 percent load with the turbine having been off-line for a period greater than 24 hours. If the turbine has had less than 120 minutes of flame time in the 24 hours preceding a start, the start will be considered a cold start. A “cold start” shall also comply with Table 3A limits. A "cold start" operation shall not exceed 240 minutes.</p> <p><u>Shutdown</u>  A "Shutdown" is defined as the maximum duration of time from emissions compliance representative of steady-state operation (at emission rates not to exceed those listed in Table 3) at 50 % percent nominal load to “no flame”. A "shutdown" operation shall not exceed 60 minutes.</p> <p><u>Protective Load Shed (PLS)</u>  A "Protective Load Shed (PLS)" event is defined as the maximum duration of time from emissions compliance representative of steady- state operation (at emission rates not to exceed those listed in Table 3) at 50 % percent nominal load to a safe operating level. During a "PLS" event, the unit will have 240 minutes to achieve emissions compliance representative of steady-state operation (emission rates not to exceed those listed in Table 3) at 50 percent nominal load. During a "PLS" event, the unit will not exceed the combined sum of the 3-hour startup and 1-hour shutdown limits per table 3A emission limits. A "PLS" operation shall not exceed 240 minutes.</p>			

The Permittee shall comply with the annual long-term emissions presented in Table 3B as a requirement of the final 7.02 air plan approval (transmittal# 118969).

EU#	Table 3 B	
EU# 1 and #2	Annual Long Term Emissions Limits <sup>(1)</sup>	
	Pollutant	(Annual Emissions) <sup>1</sup> Tons Per Year
	Sulfur Dioxide	40
	Particulate Matter	209.
	Nitrogen Oxides	151 <sup>(2)</sup>
	Carbon Monoxide	437
	Volatile Organic Compounds <sup>(5)</sup>	49 <sup>(3)</sup>
	Sulfuric Acid	21
	Ammonia	47 <sup>(4)</sup>
	<p>(1) Annual emissions (tons per year) are facility-wide emissions and are based on a rolling 12-month total.</p> <p>(2) Includes 3.0 tons from two emergency diesel generators, a waste oil burner, a natural gas raw water tank heater, natural gas dew-point heaters and one diesel fire pump. The combustion turbine total annual NOx emissions of 148 tpy corresponds to a rolling 12-month NOx emission rate of 2.3 ppmvd @ 15% O<sub>2</sub>.</p> <p>(3) Includes allowance for startup/shutdown and miscellaneous sources.</p> <p>(4) Includes breathing and working losses of the ammonia storage tanks.</p> <p>(5) VOC expressed as Methane.</p>	

## B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring, testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6, and 310 CMR 7.00, Appendix C (9) and (10) and a requirement of the final plan approval Transmittal #118969 dated March 16, 2001.



Table 4	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	<p><b>MONITORING:</b>  In accordance with the provisions of the final 7.02 air quality plan approval (transmittal # 118969) the Permittee is subject to the terms and conditions presented in Table 4 and to other terms and conditions referenced herein.</p>
	<p>A. The Permittee shall calibrate, test and operate a Data Acquisition System(s) (DAS) and stack continuous emission monitors (CEMs) to measure and record the following:</p>
	<p>1) Oxygen (O<sub>2</sub>)  2) Oxides of Nitrogen (NO<sub>x</sub>)  3) Carbon Monoxide (CO)  4) Ammonia (NH<sub>3</sub>)</p>
	<p>B. The Permittee shall ensure that all stack monitors and recording equipment comply with Department approved performance and location specifications, and conform with the EPA monitoring specifications in 40 CFR Part 60.13 and 40 CFR Part 60 Appendices B and F, and all applicable portions of 40 CFR Parts 72 and 75.</p>
	<p>C. The Permittee shall use and maintain its CEM system as "direct-compliance" monitors to measure NO<sub>x</sub>, CO, O<sub>2</sub> and Ammonia. "Direct-compliance" monitors generate data that legally documents the compliance status of a source. The Department shall utilize the data generated by the "direct-compliance" monitors, DEP recognized emission testing or other credible evidence for compliance and enforcement purposes.</p>
	<p>D. The Permittee shall comply with all the applicable monitoring requirements contained in 40 CFR Parts 72 and 75 (Acid Rain Program), and 310 CMR 7.28 (NO<sub>x</sub> Budget Rules).</p>
	<p>E. The Permittee shall equip the CEMs with audible and visible alarms to activate when emissions exceed the limits established in Table 3 of this operating permit.</p>
	<p>F. The Permittee shall operate each CEM at all times of flame-on (i.e., GT fuel combustion) except for periods of CEM calibration checks, zero and span adjustments, preventive maintenance, and periods of malfunction.</p>
	<p>G. The Permittee shall obtain and record emission data from each CEM for at least 75% of the emission unit operating hours per day, for at least 75% of the emission unit operating hours per month, and for at least 90% of the emission unit operating hours per quarter.</p>

Table 4 continued	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	H. All periods of excess emissions, even if attributable to an emergency/malfunction, startup/shutdown or equipment cleaning, shall be quantified and included in the determination of annual emissions and compliance with the annual emission limits as stated in Table 3B of this operating permit.
	I. The Permittee shall determine continuous compliance with the VOC emission limits (short-term and annual) contained herein by monitoring CO emissions with the CO CEM.
	J. Any period of excess emission of CO shall count as a period of excess emission of VOC, and the excess emission of VOC shall be accumulated towards the 49 tons per year annual emission limitation for VOC.
	K. If the gas turbine is operating below 50% load, the VOC emissions shall be considered as occurring at the rate determined in the initial stack test for startup.
	L. If the gas turbine is operating at 50% load or greater, and if CO emissions are below the CO emission limit at the given gas turbine operating conditions, the VOC emissions shall be considered as meeting the emission limits contained in this Operating Permit.
	M. If the gas turbine is operating at 50% load or greater, and if CO emissions are above the CO emission limit at the given gas turbine operating conditions, the VOC emissions shall be considered as occurring at a rate determined by the equation: $\text{VOC}_{\text{actual}} = \text{VOC}_{\text{limit}} (\text{CO}_{\text{actual}} / \text{CO}_{\text{limit}}).$
	N. The Permittee shall monitor and record the Sulfur and Nitrogen content in natural gas in accordance with the requirements contained in the amended 40 CFR Part 60, Subpart GG dated July 8, 2004.
	O. Pursuant to Transmittal# 118969 the Permittee shall operate continuous monitors and alarm systems to monitor temperature at the inlet to the SCR and CO catalysts.
	P. The Permittee shall develop a quality control/quality assurance (QA/QC) program for the long-term operation of the CEMs which conforms to 40 CFR Part 60, Appendix F, all applicable portions of 40 CFR Parts 72 and 75, and 310 CMR 7.28 (NOx Budget Rules).

Table 4 continued	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	Q. The Permittee shall maintain on-site for the CEMs an adequate supply of spare parts to maintain the on-line availability and data capture requirements.
	R. Compliance with the allowable opacity limits shall be determined in accordance with EPA Method 9, as specified in 40 CFR 60, Appendix A and in accordance with 310 CMR 7.00 Appendix C (9)(b).
	S. The Permittee shall monitor the operations for the entire facility such that the necessary information is available for the preparation of the annual Source Registration/Emission Statement forms as required by 310 CMR 7.12.
	<b>TESTING:</b>
	A. The facility shall be constructed to accommodate the emissions testing requirements contained herein. All emissions testing will be conducted in accordance with the Department's "Guidelines for Source Emissions Testing" and in accordance with the Environmental Protection Agency tests as specified in the 40 CFR Part 60, Appendix A, 40 CFR Part 60 Subpart GG, 40 CFR Parts 72 and 75, or by another method which has been correlated to the above method to the satisfaction of the Department.
	B. All compliance emission testing must be conducted within 180 days after initial start up of the turbine generator.
	C. The Permittee must obtain approval of the emission testing protocol from the Department. A detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for such tests must be submitted to the Department of Environmental Protection, 90 days prior to testing of the facility.
	D. Preliminary results of the emission testing must be submitted within forty-five (45) days of completion to the Department of Environmental Protection, 627 Main Street, Worcester, Massachusetts 01608.
	E. A final test report must be submitted in writing and in digital format within 60 days of completion to the Department of Environmental Protection, 627 Main Street, Worcester, Massachusetts 01608.

Table 4 continued	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	<p>F. Commencing with the start of the first emission compliance testing or RATA certification (which ever occurs first) and ending no later than 12 months from that date the Permittee shall conduct optimization testing to determine the lowest practicable emission rates for each of the pollutants noted in item H below and the operating conditions necessary to achieve and maintain these emission rates. The Department reserves the right to require compliance with these optimized rates as demonstrated by operating practice of the facility.</p>
	<p>G. The Department shall not require compliance with optimized rates below emission limits noted in Table 3 unless it determines that it would be practicable for the facility to meet these rates in operation with an adequate margin for degradation.</p>
	<p>H. All emission testing* shall be for Particulate Matter (PM), Volatile Organic Compounds (VOC's), Nitrogen Oxides (NOx), Sulfur Dioxide (SO<sub>2</sub>), Ammonia (NH<sub>3</sub>), Carbon Monoxide (CO) and Opacity.</p> <p>* The testing of the pollutants will be conducted utilizing natural gas at 50%, 75% and 100% base load (all without steam injection), and 100% load with steam injection.</p>
	<p>I. The Permittee shall have the right to obtain lower VOC emission limits on the basis of the emission compliance stack test results. The VOC limits contained in Table 3 of this operating permit will be so revised consistent with the stack test results, if so requested by the Permittee and/or as required by the Department.</p>
	<p>J. In accordance with 310 CMR 7.04(4)(a), the Permittee shall have the fuel utilization facility inspected and maintained in accordance with the manufacturer's recommendations and tested for efficient operation at least once in each calendar year. The results of said inspection, maintenance and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near the permitted equipment.</p>
	<p>K. In accordance with 310 CMR 7.13 the Department may require testing for any pollutants if deemed necessary to ascertain the mass emission rates and relationship to equipment design and operation. The Permittee shall conduct emission stack testing when Department has determined that such stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisions.</p> <p>Such stack testing shall be:</p> <p>a) conducted by a person knowledgeable in stack testing, and</p> <p>b) conducted in accordance with procedures contained in a test protocol which has been approved by the Department, and</p> <p>c) in the presence of a representative of the Department when such is deemed necessary in accordance with 310 CMR 7.13(1).</p>

Table 4 continued	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	L. The Permittee shall comply with the EPA test methods noted below in accordance with requirements contained in 40 CFR Parts 72 and 75, 40 CFR 60, and 310 CMR 7.28: NO <sub>x</sub> Method 20, CO Method 10 (gas filter (GFC) correlation method), VOC Methods 25A and 18, Opacity Method 9, SO <sub>2</sub> Method 20 (fuel test option), PM Method 5, NH <sub>3</sub> Conditional test method 27 or as approved by the Department.
	M. The Permittee shall conduct initial and annual stratification testing in accordance with EPA Method 20 for NO <sub>x</sub> as well as O <sub>2</sub> . The purpose of these tests shall be to document a representative CEM sampling location for NO <sub>x</sub> in accordance with annual RATA testing as well as to satisfy Method 20 initial testing requirements.
	N. Emission testing to demonstrate compliance with emission limits specified in Table 3 shall be in accordance with EPA approved reference test methods unless otherwise approved by EPA and the Department or unless otherwise specified.
	<u>310 CMR 7.28</u>
	A. In accordance with 310 CMR 7.28(11)(a)(1), any person who owns, leases, operates or controls a budget unit that commences operation before January 1, 2002 shall install, operate an successfully complete all applicable certification testing requirements for monitoring heat input, NO <sub>x</sub> emission rate and NO <sub>x</sub> mass emissions pursuant to the requirements of 40 CFR Part 75 Subpart H by May 1, 2002.
	B. In accordance with 310 CMR 7.28(11)(a)(4), all monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in 40 CFR Part 75 Subpart H.
	C. As required by 310 CMR 7.28(11)(a)(5), during a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.28, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR 75.70(f). The applicable missing data procedures are specified in 40 CFR Part 75 for NO <sub>x</sub> emission rate (in lb/MMBtu), heat input, stack gas volumetric flow rate, oil density, GCV or fuel flow rate.

Table 4 continued	
EU #	MONITORING / TESTING REQUIREMENTS
EU #1 and #2	D. In accordance with 310 CMR 7.28(11)(a)(6), NOx emissions data must be reported to the NOx Emissions Tracking System (NETS) in accordance with 310 CMR 7.28(13).
	E. In accordance with 310 CMR 7.28(11)(a)(7), budget units must report data pursuant to the requirements of 310 CMR 7.28(11) for every hour.
	F. In accordance with 310 CMR 7.28(11)(b), any person who owns, leases, operates or controls a budget unit subject to 310 CMR 7.28 must comply with the notification requirements in 40 CFR 75.61, where applicable.

Table 5	
EU #	RECORD KEEPING REQUIREMENTS
EU #1 and #2	In accordance with the provisions of the final 7.02 air quality plan approval (transmittal #118969) the Permittee is subject to the terms and conditions presented in Table 5 and to other terms and conditions referenced herein.
	A. A record keeping system shall be established and maintained on site by the Permittee. All records shall be maintained up-to-date such that year-to-date information is readily available for Department examination. Record keeping shall, at a minimum, include:
	<ol style="list-style-type: none"> <li>1) Compliance records sufficient to demonstrate that emissions have not exceeded what is allowed by this operating permit. Such records may include daily production records, raw material usage rates, fuel purchase receipts, emissions test results, monitoring equipment data and reports.</li> <li>2) Maintenance: A record of routine maintenance activities performed on the emission unit, control equipment and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.</li> <li>3) Malfunctions: A record of all malfunctions on the emission unit, control device and monitoring equipment including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the emission unit returned to compliance.</li> </ol>

Table 5	
EU #	RECORD KEEPING REQUIREMENTS
EU #1 and #2	<p>B. The Permittee shall maintain for the life of the facility all operating and monitoring records and logs. The Permittee shall make available to the Department for inspection upon request the five most recent years of data.</p>
	<p>C. The Permittee shall maintain records on natural gas to record the sulfur content in accordance with the requirements contained in the amended 40 CFR Part 60 Subpart GG dated July 8, 2004.</p>
	<p>D. The Permittee shall maintain on-site necessary permanent records of output from all continuous emission monitors for flue gas emissions, fuel consumption, SCR and CO control system inlet temperatures, and turbine inlet and ambient temperatures, and shall make these records available to the Department on request.</p>
	<p>E. The Permittee shall maintain a log to record problems, upsets or failures associated with the emission control system, CEMs, or the ammonia handling system.</p>
	<p>F. In accordance with 7.04(4)(a) the results of said inspection, maintenance and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near the equipment.</p>
	<p>G. The Permittee shall maintain sufficient records of its operations and monitoring information for the preparation of a Source Registration/Emission Statement Form for five years as required by 310 CMR 7.12.</p>
	<p><u>310 CMR 7.28</u></p>
	<p>A. The Permittee shall comply with all applicable record keeping requirements contained in 40 CFR Parts 72, 73, 75 and 77, 40 CFR 60, and 310 CMR 7.28.</p>
	<p>B. In accordance with 310 CMR 7.28(8)(e), information on the Authorized Account Representative (AAR) Form must be kept current.</p>
	<p>C. As required by 310 CMR 7.28(12), any person who owns, leases, operates or controls a budget unit must keep all measurements, data, reports and other information required by 310 CMR 7.28 for five years, or any other period consistent with the budget unit's operating permit.</p>

Table 6	
EU #	REPORTING REQUIREMENTS
EU #1 and #2	<p>In accordance with the provisions of the final 7.02 air quality plan approval (transmittal #118969) the Permittee is subject to the terms and conditions presented in Table 6 and to other terms and conditions referenced herein.</p> <p>A.     <u>Emergency or Malfunction</u></p> <p>1.       The Permittee shall provide notice of an emergency or malfunction that:</p> <p style="padding-left: 40px;">a) cause emissions to the ambient air that exceed any emission limits including noise limits contained herein; or</p> <p style="padding-left: 40px;">b) cause the release or the threat of a release of ammonia, and/or upsets or malfunctions to the ammonia handling or delivery systems; or</p> <p style="padding-left: 40px;">c) cause a condition of air pollution;</p> <p>to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, Compliance &amp; Enforcement Section within four hours (or as soon as reasonably practical) of the emergency or malfunction and in writing within three (3) business days of the emergency or malfunction. If the initial notice was not provided within four (4) hours, then the Permittee shall have the burden of establishing that the initial notice was provided as soon as reasonably practical in any subsequent enforcement action.</p> <p>2.       The Permittee shall also notify the local Boards of Health in the Towns of Blackstone and Mendon as soon as reasonably practical of the emergency or malfunction and shall copy the Boards of any written notice made to the Department.</p> <p>3.       The written notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, an estimate of the quantity of emissions released because of the emergency or malfunction and any corrective actions taken. The Permittee must comply with all notification procedures required under M.G.L. c. 21E, Spill Notification Regulations.</p>



Table 6 continued	
EU #	REPORTING REQUIREMENTS
EU #1 and #2	<p><b>"Emergency"</b> means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of these things.</p> <p><b>"Malfunction"</b> means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.</p> <p>4. The reporting requirements of this permit for an emergency or malfunction do not supersede, limit, or make inapplicable any reporting obligation under federal law, including but not limited to 42 U.S.C. sections 9603 or 11004.</p> <p><b>B. <u>Quarterly Reports</u></b></p> <p>1. The Permittee shall submit a quarterly report in writing and in digital format to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, 627 Main Street, Worcester, Massachusetts, 01608. The report will be postmarked within thirty days (30) following the end of the quarter and will contain at least the following information:</p> <p>a) The quarterly reports from the facility CEMs shall identify any periods of excess emissions in a format acceptable to the Department.</p> <p>b) For each period of excess emissions or excursions from allowable operating conditions, the Permittee shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdowns, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMs.</p>

Table 6 continued	
EU #	REPORTING REQUIREMENTS
EU #1 and #2	<p>c) A tabulator of periods of operation (dispatch).</p> <p>d) A twelve month rolling history of emission exceedances for each pollutant monitored by the CEMS</p> <p>2. The Permittee shall comply with all applicable reporting requirements contained in 40 CFR Parts 72, 73, 75 and 77; 40 CFR 60, and 310 CMR 7.28.</p> <p>3. The Permittee shall submit a Source Registration/Emission Statement form to the Department on an annual basis as required by 310 CMR 7.12(2).</p> <p>4. In accordance with 310 CMR 7.12(3), the facility shall register, on a form obtained from the Department such information as the Department may specify including:</p> <p>a) A description of the facility, including a description of process and combustion equipment, a description of facility operating hours and operating schedule, a description of all raw materials and fuels used at the facility.</p> <p>b) Information required by 310 CMR 7.12(3) shall be submitted pursuant to 310 CMR 7.12(2).</p> <p>5. Designated Representative [DR] – The Permittee shall provide the name, location and appropriate contact information [phone number] of the DR to the Department and shall provide said name to any other person who so requests it. The Permittee shall keep the information pertinent to contacting the DR current at all times.</p> <p>6. Any records or reports required to be submitted to the Department in digitized format shall be done in a format usable to the Department.</p> <p>7. Comply with all applicable reporting requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75 and 310 CMR 7.28.</p>
	<p>C. <u>310 CMR 7.28</u></p> <p>1. As required by 310 CMR 7.28(13)(a)(1), for units commencing operation prior to May 1, 2002, the AAR must submit quarterly reports for each calendar quarter beginning with: the earlier of the calendar quarter that includes the date of initial certification or, if the certification tests are not completed by May 1, 2002, the partial calendar quarter from May 1, 2002 through June 30, 2002. Data shall be recorded and reported from the earlier of the date and hour corresponding to the date and hour of certification or the first hour on May 1, 2002.</p>

Table 6 continued	
EU #	REPORTING REQUIREMENTS
EU #1 and #2	2. In accordance with 310 CMR 7.28(13)(b), the AAR for each budget unit using CEMS must submit to the Administrator all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75 Subpart H and 40 CFR 75.64
	3. In accordance with 310 CMR 7.28(13)I(1), for units subject to an Acid Rain Emissions limitation, quarterly reports shall include all of the data and information required in 40 CFR Part 75 Subpart H for each NOx Budget unit (or group of units using a common stack) as well as information required in 40 CFR Part 75 Subpart G.
	4. In accordance with the requirements of 310 CMR 7.28(13), NOx emissions data must be reported pursuant to the requirements of 310 CMR 7.28(11)(a)(6), (a)(7) and (b).
	5. NO <sub>x</sub> emissions data should be reported directly to EPA's National Computer Center mainframe computer in a method acceptable to EPA. The deadline to submit data to EPA is 30 days after the end of each calendar quarter.
	6. In accordance with 310 CMR 7.28(13)(e), by October 15 of each year, any person who owns, leases, operates or controls a new or existing budget unit must report to the Department each facility's metered net electric and useful steam output for that year's control period. Net electric output must be reported in megawatt-hours, and steam output in MMBtu. If data for steam output is not available, the person may report heat input providing useful steam output as a surrogate for steam output. (See table 8, Special Terms and Conditions, 310 CMR 7.28, Item #4).
	7. In accordance with 310 CMR 7.28(15), for each control period, the AAR for the budget unit shall submit by November 30 of each year, an annual compliance certification report to the Department and the NATS Administrator. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.28(15)(c) 1 through 8.
	8. Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to the DEP Lawrence office at DEP, Wall Experiment Station, 37 Shattuck Street, Lawrence, MA 01843-1398 Attn: Source Monitoring Section, and to the DEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).

Table 6 continued	
EU #	REPORTING REQUIREMENTS
EU #1 and #2	<p>9. A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to the DEP Lawrence within 45 days of completion of tests. In lieu of submitting the full test reports to DEP Regional office, the data assessment summary reports required by 40 CFR 60 Appendix F Procedure 1 Section 7 must be submitted to DEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).</p>
	<p>10. A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous DEP protocol comments to the satisfaction of the DEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.</p>
	<p>11. Results from QA daily Calibrations quarterly Linearity checks and 40 CFR Part 75 Appendix D Fuel Flow meter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.</p>

**C. GENERAL APPLICABLE REQUIREMENTS**

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.

**D. REQUIREMENTS NOT CURRENTLY APPLICABLE**

1. The Permittee is not subject to the following requirements: 310 CMR 7.27, the NOx Allowance Program.
2. The Permittee is currently not subject to the following requirements.

Table 7	
REGULATION	REASON
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	Facility employs less than 250 workers
42 U.S.C. 7401, §112 Hazardous Air Pollutants	Does not exceed threshold
42 U.S.C. 7401, §112(r) Prevention of Accidental Releases	Facility does not store or process applicable chemicals above thresholds

**5. SPECIAL TERMS AND CONDITONS**

The Permittee shall comply with the Special Terms and Conditions presented in Table 8 in accordance with the Final 7.02 air plan approval (Transmittal # 118970).

Table 8

SPECIAL TERMS AND CONDITIONS

A. Fuel of Use Limit

The Permittee may only burn natural gas as the fuel of use in the turbines.

B. Training

The Permittee shall properly train all personnel to operate the facility and control equipment in accordance with vendor specifications. All persons responsible for the operation of the ammonia handling and SCR control systems shall sign a statement affirming that they have read and understand the approved standard operating and standard maintenance procedures. This training shall be updated at least once annually. Department personnel shall be informed of scheduled training sessions at least 30 days in advance and Department personnel shall have the ability to attend these training sessions.

C. Fifty Percent Power

1. Pursuant to Transmittal# 118969 the Permittee shall allow the gas turbine which will operate at less than 50% power only during start-ups, shutdowns, and PLS events is limited in duration in accordance with Table 3A provisions. In addition, during times when the unit is under automatic generation control (AGC) or electronic dispatch (ED) as controlled by the Independent System Operator (ISO) group, the Permittee will meet all Table 1 emission limits and not operate below 45% power.

2. The Permittee shall ensure that the SCR control equipment for the turbine generator is operational whenever the turbine is operated at 50% power or greater.

D. NOx Offsets and Budgets

1. American National Power Inc., 100% owner of the facility has transferred ownership of 190.3 tons per year of NOx emission reduction credits, acquired for use as emission offsets for this project, to the Permittee.

2. The Permittee shall comply with all applicable operational standards contained in 40 CFR Part 72, 73, 75, 77 and 40 CFR 60. All references to compliance with 40 CFR 60 in this approval shall incorporate the provisions of the custom monitoring schedule issued by EPA Region I dated February 2, 2001 and any subsequent custom monitoring schedule.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

E. Ammonia

1. Pursuant to Transmittal# 118969 aqueous ammonia is used as the reducing agent in the SCR system. The aqueous ammonia mixture is stored on site in two storage tanks. The two tanks are 13.1 feet in diameter by 14.8 feet in height with a combined total of 28,000 gallons storage capacity. In the event of an accidental spill, the aqueous ammonia solution will be pooled into a containment dike covered with a floating layer of ball-like baffles that reduce the liquid surface area by 91% and thus reduce the ammonia vaporization rate.
2. The Permittee shall maintain, in the facility control room, portable ammonia detector, or detector tube system for use during a spill or atmospheric release.
3. The Permittee shall either calibrate the portable ammonia monitors at least once per year (or at the frequency recommended by the ammonia detector manufacturer) or maintain appropriate detector tube(s) within the manufacturer's expected shelf life and maintain records on site.
4. The aqueous ammonia storage tanks shall be equipped with high and low level audible alarm monitors. The high and low alarm set points should be set such as to allow ample margin of error so as to prevent over- filling at the high level and to prevent loss of catalytic control of the exhaust gases at low ammonia supply levels.
5. The high/low level alarm system shall receive the periodic maintenance, testing and calibration recommended by the manufacturer of the alarm system. The ammonia tank shall be emptied, cleaned and inspected by an appropriate trained individual at the interval recommended by the tank manufacturer. The balls must be free of ice and other restrictions that would inhibit their foundation.
6. The Permittee shall at all times keep enough of the ball-like plastic baffles within the containment area around the aqueous ammonia storage tanks to provide 91% surface area.
7. The Permittee shall install high level ammonia detectors equipped with an audible alarm in the control room, at the ammonia tanker unloading pit and near the storage tanks.
8. The Permittee shall store the standard operating and maintenance procedures for the ammonia handling system in a convenient location (control room/technical library) and make them readily available to all employees.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

F. Noise Limits (State Only Requirement)

1. Department Policy 90-001 provides that an increase in sound by more than 10 dBA over the existing  $L_{90}$  ambient level, unless otherwise specified, will be considered a violation of the air quality regulations. Additionally, "pure tone" sounds defined, as any octave band level, which exceeds the levels in adjacent octave bands by 3 dBA or more, will also be a violation of 310 CMR 7.10.
2. The Department may exercise its discretion to allow a sound increase above the 10 dBA despite the use of extensive sound control measures. This may occur when the impact is at an area where residents or other sensitive receptors are not located at the time the permit is issued, and will not be allowed to be located there in the future.
3. The facility shall be designed, constructed, operated and maintained such that at all times:
  - (a) No condition of air pollution will be caused by emissions of sound as provided in 310 CMR 7.01;
  - (b) No sound emissions resulting in noise will occur as provided in 310 CMR 7.10 and the Department's Policy 90-001 other than approved herein; and
  - (c) Emission limits for sound emissions will not exceed the Maximum Allowable Plant Generated Noise levels set forth in Table 8A at the locations as identified in said Table.
4. The Permittee has secured from the two abutting owners of the sand and gravel operation (receptor locations PL-1, 2 and 3) a Land Use Easement and Restriction (the "Easement and Restriction") that prohibits the establishment of any residential use, including without limitation, the following types of structures: single or multiple family dwellings, residential condominiums, hospitals, nursing homes, assisted living facilities, dormitories or schools. The schools and pre-schools are non-residential uses.

Table 8 continued  
SPECIAL TERMS AND CONDITIONS

5. The Easement and Restriction between the Permittee and abutting owners Kimball Sand Company, Inc. and Robert W. Kimball, Trustee of SAK Realty Trust, was recorded in the Worcester County Registry of Deeds, in a form approved by the Department, prior to the commencement of operation of the facility and will be enforceable against the current and future owners. An executed copy of said Easement and Restriction was submitted to the Department on March 8, 2001.
6. The Permittee shall not amend, modify, assign or terminate the Easement and Restriction prior to final decommissioning of the facility without the express written consent of the Department. The Permittee shall fully maintain and enforce the Easement and Restriction against the abutting owners to prevent any violation thereof by any present or future abutting owner. The Permittee shall take all actions necessary to enforce the Easement and Restriction if activities on the abutting property are inconsistent with the terms and conditions of the Easement and Restrictions.

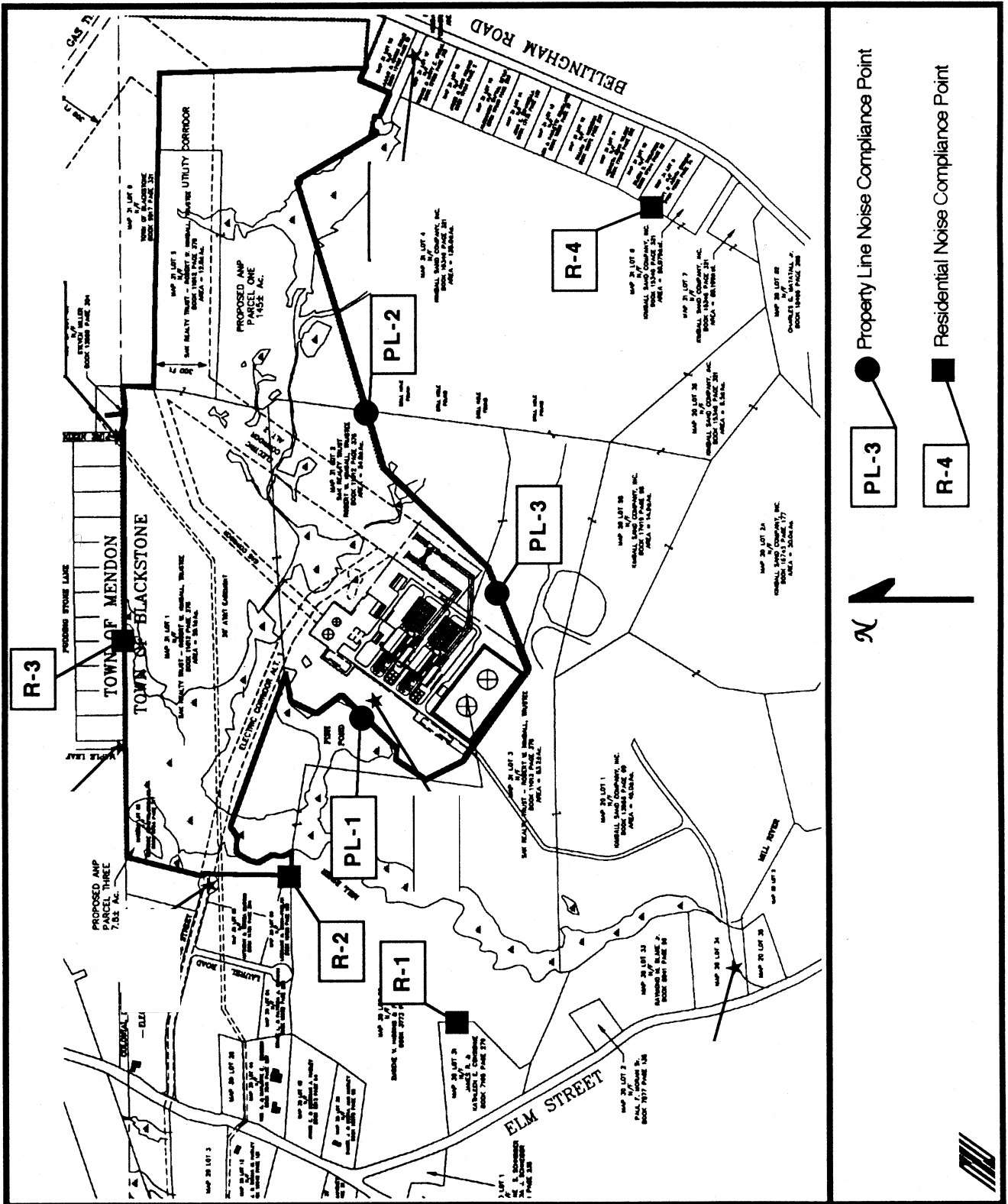
G. Sound Levels (State Only Requirement)

Table 8A							
SOUND LEVELS AT NOTED LOCATIONS							
Receptor Location (1)	Current Background Ambient (One hour- $L_{A90}$ ) dBA		Maximum Allowable Plant Generated Noise (One hour- $L_{A90}$ )	Resultant Ambient Day/Night Sound Levels (One hour - $L_{A90}$ ) <sup>(5)</sup>			
				Ambient $L_{90}$ -dBA		Increase	
	Night	Day		Night <sup>(6)</sup>	Day <sup>(7)</sup>	Night	Day
R1	30	30	36	37	37	7	7
R2	29	36	38	39	40	10	4
R3	28	31	38	38	39	10	8
R4	29	30	34	35	35	6	5
PL-1 <sup>(2)</sup>		32	50		50		18
PL-2 <sup>(3)</sup>		32	43		43		11
PL-3 <sup>(4)</sup>		32	53		53		21

- (1) Receptor locations as noted in Figure 1.
- (2) PL-1 represents NW property line segment proximate to Fish Pond oriented at S43°28'46"W.
- (3) PL-2 represents E property line point where segment oriented at 73°34'10"E intersects northwest corner of parcel designated as Map 31 Lot 4.
- (4) PL-3 represents SE property line segment oriented at N68°43'25"E.
- (5) One hour  $L_{A90}$ = the A weighted decibel noise level exceeded for 90% of the time over a one hour period.
- (6) Night is defined as 2200 hour to 0700 hour.
- (7) Day is defined as 0700 hour to 2200 hour.



### Figure 1



H. Sound Measurements (State Only Requirement)

1. The Permittee shall submit an amendment to the post construction ambient sound measurement protocol that was previously approved by the Department to reflect any changes in the protocol necessary to conform to the requirements noted herein. The amended protocol is subject to DEP approval. The protocol shall cover both “Sound Compliance Measurements” (SCM) and “Sound Monitoring Measurements” (SMM) as specified below.
2. SCM shall be conducted in accordance with the provisions of this section to assure compliance with the Maximum Allowable Plant Generated Noise Levels specified in Table 8A column 4 of this operating permit. Sound measurements shall be made at each receptor location in accordance with the following:
  - a) With the plant in operation – sound measurements shall be made to determine the resultant ambient sound levels (that is the ambient sound with the facility in operation). If the resultant sound levels do not exceed the levels noted in Table 8A (column 5 and 6) the facility will be presumed to meet the plant generated noise levels noted in Table 8A.
  - b) If the resultant sound levels exceed the levels in Table 8A a new set of measurements shall be made at each of the receptor locations noted in Table 8A column 1. Said measurements shall be made at the next plant shutdown or within 30 days, which ever is sooner. Ambient sound measurements shall first be measured when the plant is not in operation. After the ambient measurement is completed the plant will be placed in operation as soon as practical and the sound measurement shall be repeated. Standard mathematical noise analysis shall be applied to the data to determine the plant generated noise component.
  - c) As an alternative to 2.a) the Permittee may choose to implement 2.b) for compliance sound measurements.
  - d) A SCM period shall consist of a continuous measurement of sound for 60 minutes. At each receptor location the SCM shall be conducted during the quietest nighttime period as determined by previous sound surveys.
  - e) SCM with the facility in operation shall only be conducted when the facility is operating at loads greater than 70% capacity.
  - f) SCM shall commence within 45 days of the completion of the first air emission compliance testing.
  - g) SCM for the one hour  $L_{90}$  sound levels shall be taken with a properly calibrated ANSI type I sound level meter capable of recording and storing sound levels as measured. The meter shall be set to A-weight filtering. Readings shall be measured continuously for 60 minutes. The residual  $L_{90}$  noise level for the 60 minutes shall be as noted by the meter and logged.

Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

- h) SCM for the third octave band levels shall be measured once within the first three months of the SCM monitoring and once 3 to 6 months later. Measurements shall be taken with an instrument meeting the requirements of ANSI S1.11, and in accordance with procedures approved by the Department. Compliance with pure tone shall be in accordance with the Department's noise policy BWP- 90-001.
- i) SCM shall be made as close as possible to the Receptor Locations listed in Table 8A.
- j) The results of each SCM period shall be summarized in a written report and submitted to the CERO Section Chief within 30 days of completion of that monitoring period. A digitized copy of the raw data collected shall be submitted along with the written report. The report shall include the receptor location along with the time of the measurements, weather conditions, operating parameters of the facility, and any unusual or notable events that may have influenced the sound measurements as determined by the noise specialist conducting the SCM.
3. Sound Monitoring Measurements (SMM) shall be conducted to observe long-term sound trends near the facility and to assist in determining if additional Sound Compliance Measurements are necessary.
- a) SMM shall be made in at least three fixed locations near the facility where interference from extraneous sounds is expected to be minimal. The Department shall approve these locations prior to equipment set-up. More than three monitoring locations may be requested by DEP if they are determined necessary to make an adequate noise assessment.
- b) SMM shall consist of at least two continuous 168-hour recording periods. Each period shall consist of 168 individual one-hour A-weighted  $L_{90}$  sound level recordings. Each shall be conducted at least six months apart.
- c) The SMM shall commence no later than one year after the conclusion of the SCM testing.
- d) The SMM data shall be submitted to the CERO Permitting Section within 60 days of completion of each monitoring period. The data shall be presented in graphical format. The graphs shall show hourly  $L_{90}$  readings over a 168-hour time period. A digitized copy of the raw data collected shall be maintained by the Permittee and made available to the DEP if requested. The report shall include one-hour  $L_{90}$  sound levels at each measurement location. General weather conditions, operating parameters of the facility, and any unusual or notable events that may influence the noise measurements as determined by the noise specialist conducting the SMM shall be included in the report.
4. All readings shall be stored on a data logger in disc or similar digital format. Time histories of the one-hour A weighted  $L_{90}$  sound levels shall be stored at the facility and made available to the Department upon request.

Table 8 continued	
SPECIAL TERMS AND CONDITIONS	
<p>5. A qualified noise specialist using noise-monitoring equipment complying with the Type 1 requirements of ANSI S1.4 shall conduct the sound compliance measurements and shall oversee the operations of the sound monitoring measurements required under this approval.</p>	
<p>6. Unless otherwise ordered by the Department or as required under Section III, the Permittee shall monitor sound in accordance with the Department approved Protocol as specified under Table 8(C) (1).</p>	
<p>I. <u>Noise Abatement Equipment and Procedures (State Only Requirement)</u></p>	
<p>1. Pursuant to Transmittal# 118969 the following plant equipment may be a source of significant sound emissions unless properly controlled: the intakes and exhaust of two 180 MW combustion turbines, two air cooled condensers, two heat recovery steam generators, two turbine buildings and their associated ventilation systems, two main transformers, two circulating-cooling-water coolers, the gas compressor building, steam lines, gas lines and steam release vents. In addition, other sources of sound at the facility may include various water pumps, piping and valves, building openings, fans, and on site communication systems.</p>	
<p>2. The facility shall be designed with the following noise mitigation measures:</p>	
<p>a) TRANSFORMERS - Transformers shall have concrete walls on three sides. The main transformers shall incorporate a split design and a fourth wall as a requirement of TR# 118969;</p>	
<p>b) BUILDING DOORS shall be kept closed at all times except for when they are being used for specific entry or exit. Doors shall be of solid design;</p>	
<p>c) All VENTILATION OPENINGS to the turbine building and any buildings or enclosures designed and installed for sound attenuation shall be equipped with state of the art<sup>2</sup> sound attenuation mufflers or baffles;</p>	
<p>d) GAS TURBINES AND STEAM TURBINES shall be contained within a structure specifically designed to attenuate sound. The walls of these structures shall be made of state of the art sound attenuation material to minimize sound that could be emitted from these sources. The gas turbine intakes shall be equipped with Grade G silencers or better;</p>	

<sup>2</sup> STATE OF THE ART sound abatement means and measures shall mean for purposes of this approval the use of means and measures that will provide the best sound abatement for the equipment, process or source noted herein as recognized by current engineering principles and practices at the time of construction necessary to meet the requirements of the permit. Means and measures of sound abatement shall be considered equivalent if they provide for no different than two-dBA noise reductions at the equivalent distance.

Table 8 continued
SPECIAL TERMS AND CONDITIONS
<p>e) All ON SITE GAS SUPPLY LINES shall be buried under ground, contained within state of the art acoustically treated structures, or specifically constructed with state of the art sound attenuation materials to prevent these sources from causing a pure tone or tonal sound audible off property;</p> <p>f) HIGH PRESSURE LINES -All high-pressure lines shall be buried under ground, contained with state of the art acoustically treated structures, or specifically constructed with state of the art sound attenuation materials;</p> <p>g) HEAT RECOVERY STEAM GENERATOR design shall include a silencer with gas turbine exhaust duct cladding and state of the art noise attenuation cladding as necessary. HRSG high-pressure feed water and recirculation pump design shall include pumps enclosed in a building with sound absorbing cladding. The HRSG may also be enclosed by state of the art sound attenuation walls and roofing if determined necessary by the proponent;</p> <p>h) TURBINE exhausts shall be equipped with state of the art sound attenuating mufflers;</p> <p>i) ALL STEAM RELEASE VENTS [normal and emergency] shall be fitted with sound abatement mufflers;</p> <p>j) NON-EMERGENCY STEAM RELEASES of steam safety valves and steam blows shall be conducted only during day light hours. ANP shall notify the DEP/CERO and the Boards of Health, local Police Departments, and any local citizen groups who request notification in the Towns of Blackstone and Mendon at least 24 hours before such non-emergency releases are to be conducted;</p> <p>k) DRY COOLING TOWERS shall be designed and constructed using state of the art sound attenuation features with low noise fans and noise reduction motors and increased cooling area to limit both total noise and tonal noise generated by the facility to levels as identified in the plan submittals;</p> <p>l) AIR COOLED CONDENSERS shall be designed and constructed with state of the art sound attenuation features as identified in the plan submittals;</p> <p>m) PERIMETER BERMS, noise abatement walls and other site specific sound minimization features may be employed as necessary to minimize property line sound levels from the facility.</p> <p>3. Except as otherwise ordered by the Department, the schedule for completion of the remedial actions shall not exceed thirty days (30) from the Department's approval of the above plan, or applicable part(s) thereof, unless the Permittee adequately demonstrates that the work cannot be completed within thirty days using its best efforts. In reviewing a best efforts demonstration the Department will not consider delays that could have been reasonably avoided had the facility been designed and constructed in manner to facilitate the timely completion of the proposed remedial actions, including, for example, installation of additional sound reduction equipment, sound containment structures or other sound barriers.</p>

Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

4. If the remedial actions are not completed in accordance with the schedule established by the Department and there is continuing non compliance with the sound emission levels established in this permit or in regulation at one or more residences, the Permittee shall, unless otherwise ordered by the Department, modify the operations of the facility in order to return to compliance including, as necessary, reduction of the facility's operating capacity, restriction of its hours of operations, or suspension of operations. The modifications shall commence on the first day beyond the established completion date and continue until the operator certifies in writing to the Department that all the remedial actions are completed.

5. Nothing in this permit shall be interpreted to restrict, limit or in anyway impair the Department's authority to institute such administrative or judicial enforcement actions as it deems necessary in response to non-compliance with the terms and provisions of this permit or the Department's regulations.

**J. Response To Non-Compliance (State Only Requirement)**

1. Upon receiving information that the facility may be in non-compliance with the provisions of this permit regarding sound emission levels, the Permittee shall take the following immediate actions:

- (a) Notify the BWP CERO Compliance and Enforcement Section by telephone or fax;
- (b) Verify whether non-compliance occurred and is continuing
- (c) Take all reasonable interim steps to eliminate or minimize sound emissions to return to compliance.

2. Should non-compliance with this permit or the Department's regulations due to sound emissions from the facility affecting one or more residences occur despite the interim steps implemented above, the Permittee shall, unless otherwise ordered by the Department, submit within 30 days of receipt of information of non-compliance from the Department or other credible source, whichever is earlier, a sound reduction plan which sets out the additional monitoring and remedial actions it proposes to implement in order to verify a return to compliance and a schedule for the commencement and completion of each major component of the monitoring and remedial actions.

3. Except as otherwise ordered by the Department, the schedule for completion of the remedial actions shall not exceed thirty days (30) from the Department's approval of the above plan, or applicable part(s) thereof, unless the Permittee adequately demonstrates that the work cannot be completed within thirty days using its best efforts. In reviewing a best efforts demonstration the Department will not consider delays that could have been reasonably avoided had the facility been designed and constructed in manner to facilitate the timely completion of the proposed remedial actions, including, for example, installation of additional sound reduction equipment, sound containment structures or other sound barriers.

4. If the remedial actions are not completed in accordance with the schedule established by the Department and there is continuing non compliance with the sound emission levels established in this permit or in regulation at one or more residences, the Permittee shall, unless otherwise ordered by the Department, modify the operations of the facility in order to return to compliance including, as necessary, reduction of the facility's operating capacity, restriction of its hours of operations, or suspension of operations. The modifications shall commence on the first day beyond the established completion date and continue until the operator certifies in writing to the Department that all the remedial actions are completed.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

5. Nothing in this permit shall be interpreted to restrict, limit or in any way impair the Department's authority to institute such administrative or judicial enforcement actions as it deems necessary in response to non-compliance with the terms and provisions of this permit or the Department's regulations.

K. 310 CMR 7.28 – NO<sub>x</sub> Allowance Program

1. EU #1 and EU #2 are subject to the requirements of NO<sub>x</sub> Allowance Program, 310 CMR 7.28. The Department issued an Emission Control Plan (ECP) Phase I and Phase II approval (Transmittal # W024283) for this facility on April 2, 2002 and July 24, 2002 respectively.
2. NO<sub>x</sub> Allowance use and transfer must comply with 310 CMR 7.28(10).
3. In accordance with 310 CMR 7.28(14), each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO<sub>x</sub> emissions from the budget unit in the current control period.
4. Each budget unit shall meter electric and/or steam output in accordance with the approved monitoring methodology contained in Table II and Table III of the ECP Approval (Transmittal # W024283).
5. In the case where billing meters are used to determine output, no QA/QC activities beyond those already performed are required. To qualify as a billing meter, the measurement device must be used to measure electric or thermal output for commercial billing under a contract. The facility selling the electric or thermal output must have different owners from the owners of the party purchasing the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output.

Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

6. In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement. When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.

7. Output measurement equipment must be tested for accuracy or recalibrated at least once every two years, in accordance with applicable consensus or NIST traceable standards, unless a standard allows for less frequent calibrations or accuracy tests.

**L. TITLE IV SULFUR DIOXIDE ALLOWANCES AND MONITORING**

1. According to 40 CFR Part 72, the facility was designated as a Phase II Acid Rain "New Affected Unit" on January 1, 2000 or 90 days after commencement of operations, whichever comes later, but not after the date the facility declares itself commercial. The Acid Rain application for the facility was approved by the Department on October 25, 2000.

2. The Acid Rain Program effects reductions of SO<sub>2</sub> by allocating a limited number of marketable allowances primarily to existing power plants and by requiring all plants, including new plants that were not allocated allowances, to hold or obtain allowances to offset their annual actual SO<sub>2</sub> emissions. Allowances are available through the Chicago Board of Trade and other sources and will be secured by the Permittee.



Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

3. The Permittee will also be required to have a Designated Representative (DR) and to install a Continuous Emissions Monitoring System for each of the two units. The DR is the facility representative responsible for submitting required permits, compliance plans, emissions monitoring reports, offset plans, compliance certification, and is the responsible official with regards to all matters under the Acid Rain Program. The continuous emission monitoring requirements are specified in 40 CFR Part 75 for monitoring SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions as well as volumetric flow of the flue gas. As an option, EPA allows gas fired facilities to conduct fuel sampling and analysis and fuel flow monitoring in place of SO<sub>2</sub> continuous emissions monitoring and flue gas flow monitoring. Natural gas fired units complying with 40 CFR 75.14(c) are exempt from the opacity monitoring requirements. In addition, pursuant to 40 CFR 75.13, CO<sub>2</sub> emissions may be estimated in accordance with 40 CFR part 75 Appendix G, in lieu of installing a CO<sub>2</sub> CEM.

**M. Federal Phase II Acid Rain Requirements**

- a. EU #1 and #2 are Phase II Acid Rain units as defined by the EPA in 40 CFR Part 72. Pursuant to 40 CFR §72.71, 40 CFR §72.73, and 310 CMR 7.00 Appendix C (3)(n), the Department is the permitting authority for Phase II acid rain permits. The Department issued the initial Phase II acid rain permit (Approval No. ORIS NO. 55212) for this facility on October 25, 2000 and is incorporating the renewal Phase II Acid Rain approval into the operating permit.
- b. Within 60 days of the end of each calendar year the Permittee shall hold in its SO<sub>2</sub> allowance account at least one allowance for each ton of SO<sub>2</sub> emitted during the previous year. An allowance is a limited authorization to emit SO<sub>2</sub> in accordance with the Acid Rain Program.
- c. If the facility has excess emissions in any calendar year, it shall submit a proposed offset plan as required under 40 CFR Part 77. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.
- d. In accordance with 40 CFR Part 73, the Permittee's designated representative may buy, sell, trade, or transfer allowances between EU accounts at any time, except between within 60 days of the end of the calendar year and the completion of the annual SO<sub>2</sub> allowance reconciliation for the preceding year(s).
- e. Pursuant to 40 CFR Part 73 Table 2 (as amended), EPA will annually allocate zero (0) SO<sub>2</sub> allowances during calendar years 2000 through 2009.
- f. Within 60 days of the end of each calendar year the designated representative shall submit to the Department an annual compliance report pursuant to 40 CFR Part 72.9 Subpart I.

**6. ALTERNATIVE OPERATING SCENARIOS**

The Permittee did not request alternative operating scenarios in its operating permit application.

**7. EMISSIONS TRADING**

(a) Intra-facility emission trading

The facility did not request intra-facility emissions trading in its operating permit application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this permit, may be implemented provided the Permittee notifies The United States Environmental Protection Agency (EPA) and the Department at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2 is required to be submitted to the Department pursuant to 310 CMR 7.00: Appendix B.

(b) Inter-facility emission trading

The Permittee did not request inter-facility emissions trading in its operating permit application.

All increases in emissions due to emission trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et seq. (the "Act"), and provided for in this permit.

**8. COMPLIANCE SCHEDULE**

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the permit term.

**GENERAL CONDITIONS FOR OPERATING PERMIT**

**9. FEES**

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

**10. COMPLIANCE CERTIFICATION**

All documents submitted to the Department shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>.

(a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the Department and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the Department to determine the compliance status of the source.

(b) Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the Department. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;

- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- ix. any additional information required by the Department to determine the compliance status of the source.

**11. NONCOMPLIANCE**

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the Department and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

**12. PERMIT SHIELD**

(a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier approval or permit, the terms and conditions of this permit control.

(b) The Department has determined that the permittee is not currently subject to the requirements listed in Section 4, Table 7.

(c) Nothing in this permit shall alter or affect the following:

- (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
- (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
- (iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

**13. ENFORCEMENT**

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.02(8)(i), 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the Department, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**14. PERMIT TERM**

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date 5 years after issuance of this permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

**15. PERMIT RENEWAL**

Upon the Department's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the Department on the renewal application.

In the event the Department has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the Department takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

**16. REOPENING FOR CAUSE**

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department and/or EPA. The responsible official of the facility may request that the Department terminate the facility's operating permit for cause. The Department will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an operating permit revision, revocation and re-issuance, or termination, or a notification of a planned change or anticipated non-compliance does not stay any operating permit condition.

**17. DUTY TO PROVIDE INFORMATION**

Upon the Department's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records that the Permittee is required to retain by this permit.

**18. DUTY TO SUPPLEMENT**

The Permittee, upon becoming aware that any relevant facts were omitted or that incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the Department a material error or omission in any records, reports, plans, or other documents previously provided to the Department.

**19. TRANSFER OF OWNERSHIP OR OPERATION**

This permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between current and new Permittee, has been submitted to the Department.

**20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

**21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Department, and EPA to perform the following:

- (a) enter upon the permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

**22. PERMIT AVAILABILITY**

The Permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the Department or EPA.

**23. SEVERABILITY CLAUSE**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**24. EMERGENCY CONDITIONS**

The permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was at the time being properly operated;
- (c) during the period of the emergency, the permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- (d) the permittee submitted notice of the emergency to the Department within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response immediate notification to the appropriate parties should be made as required by law.

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<sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

## **25. PERMIT DEVIATION**

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

The Permittee shall report to the Department's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>. This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

## **26. OPERATIONAL FLEXIBILITY**

The permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit and in compliance with all applicable



requirements provided the permittee gives the EPA and the Department written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

## **27. MODIFICATIONS**

(a) Administrative Amendments - The permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1, provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).

(b) Minor Modifications - The permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2, provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).

(c) Significant Modifications - The permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3, provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).

(d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

## **APPEAL CONDITIONS FOR OPERATING PERMIT**

This permit is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C (6), with respect to the Department's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the permit is not consistent with applicable laws and regulations. The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to

The Commonwealth of Massachusetts, Department of Environmental Protection, P.O. Box 4062, Boston, MA 02211.

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

## 28. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT\*

< - Less Than	MADEP – Massachusetts Department of Environmental Protection
≤ - less than or equal to	
> - Greater Than	MMBtu - million British Thermal Units
lb/hr - Pounds Per Hour	MMBtu/hr – Million British Thermal Units Per Hour
10 <sup>6</sup> BTU/hr - 1,000,000 British Thermal Units per Hour	NA – not applicable
AQCR - Air Quality Control Region	NH <sub>3</sub> - Ammonia
ASTM - American Society of Testing Materials	NO. – number
ABC/TBC – Augmented Backside Cooling/ Thermal Barrier Control	NO <sub>x</sub> – Oxides of Nitrogen
CEM - Continuous Emission Monitor	% - Percent
CFR- Code of Federal Regulation	PB - Lead
CMR – Code of Massachusetts Regulations	
CO – Carbon Monoxide	PLT ID – Plant Identification
EPA - Environmental Protection Agency	lb/MMBtu – pound per million British Thermal Units
EU - Emission Unit	PM – Particulate Matter
EU# - Emission Unit Number	PM <sub>10</sub> Particulate Matter less than 10 microns in aerodynamic diameter
FMF FAC. NO. - Facility Master File Number	PPM – Parts Per Million
FMF RO NO. - Facility Master File Regulated Object Number	PPMVD – parts per million by volume, dry measure at 15% O <sub>2</sub>
FT <sup>3</sup> /YR – cubic feet per year	PS – Pressure Sensitive
GPH – gallons per hour	PM – particulate matter
HAPs – Hazardous Air Pollutants	PTE – Potential to Emit
	RTO – Regenerative Thermal Oxidizer
	SO <sub>2</sub> – Sulfur Dioxide
	SSEIS – Stationary Source Emission Inventory System
	FT <sup>3</sup> /day - Cubic Feet Per Day
	TPM – Tons Per Month
	TPY – tons per twelve month rolling total
	USC - United States Code
HC – Hydrocarbons	VOC – Volatile Organic Compounds
HHV - Higher Heating Value	ISO - Represent 59°F, 60% Relative Humidity, 29.92 Inches Mercury At Sea Level
HP – horse power	

\* Not all abbreviations are present in every Operating Permit